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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,528	08/18/2006	William Ross	3700.P0405US	1574
23474 7590 10/14/2009 FLYNN THIEL BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631				
EXAMINER				
KELLY, RAFFERTY D				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/553,528

**Applicant(s)**

ROSS, WILLIAM

**Examiner**

RAFFERTY KELLY

**Art Unit**

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-8, 16, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ganapathi et al. (US 6578436 B1).

Regarding claim 1, Ganapathi et al. teaches a memory device (Fig. 16) comprising an array of bits or binary units (Rs), the bits being defined by a plurality of first conductors (A-H) and either a second conductor or a plurality of second conductors (1-8) overlying and separated from the first conductors, each bit including a cross-over point (Rs) between one of the first conductors and the second conductor, or one of the second conductors, and wherein the status of each bit or binary unit is determined by the presence or absence of a signal bridge (Rs) connecting the first and second conductors at respective cross-over point (Claim 1).

Regarding claim 2, Ganapathi et al. teaches wherein the plurality of first conductors are substantially parallel to each other and substantially orthogonal to the second conductor or conductors, and the plurality of second conductors are substantially parallel to each other (Fig. 13).

Regarding claim 3, Ganapathi et al. further teaches wherein the signal bridge is a capacitor (Conductors separated by space).

Regarding claim 4, Ganapathi et al. further teaches wherein the signal bridge is a contact bridge (Col. 14 Lines 1-13).

Regarding claim 5, Ganapathi et al. further teaches comprising an insulating layer between the first and second conductors, the insulating layer including a signal via at each of the cross-over points through which said signal bridges connect the respective first and second conductors (Col. 6 Lines 13-20).

Regarding claim 6, Ganapathi et al. further teaches comprising a bit map or bit pattern layer (Fig. 7A, 7B) layer having a pattern of conductive elements (72) forming contact bridges on a surface overlying the array of cross-over points for connecting each of those cross-over points through which a said contact bridge connects the respective first and second conductors at the respective cross-over point (Col. 8 Lines 33-50).

Regarding claim 7, Ganapathi et al. further teaches wherein there are switch means (Col. 4 Line 48) on a surface of the array of bits or cross-over points and associated with each bit or cross-over point (Col. 4 Lines 49-51), each switch means including a first contact portion of one of the first conductors (Col. 4 Line 49) and a second contact portion of the second conductor or one of the second conductors (Col. 49 Line 50) wherein the first and second contact portions of each bit or cross-over point are separated from one another (Col. 4 Lines 53-54), and the contact portions of predetermined selection of the bits or cross-over points are connected by the contact bridges of the overlying bitmap or bit pattern layer to connect the first and second conductors at each pre-determined selected cross-over point (Col. 2 Lines 49-53).

Regarding claim 8, Ganapathi et al. further teaches wherein the insulating layer is a thin sheet of a plastics material such as a polyimide, polyester, polystyrene, or polyethylene (Col. 7 Lines 46-48).

Regarding claims 16 and 17, these method claims are taught by the same features of Ganapathi discussed above. The method claims merely restate the structural features of the device described by claims 1-8. Regarding the vias being drilled holes through the insulating support and the walls of the holes are coated with a conductive material, this is taught by Ganapathi (Col. 7 Lines 40-62).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganapathi in view of Lofberg (US 4582985).

Regarding claim 9, Ganapathi teaches the memory device according to claim 1, as shown above.

Ganapathi lacks the memory device being used in an identification card.

Lofberg teaches an identifying card including a memory device (sensor 2, memory 6) programmed with identification data characteristic to the authorized user of the card (Col. 4 Lines 54-60); further comprising a fingerprint sensor (2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to provide the memory device of Ganapathi on the card of Lofberg because using a fingerprint sensor provides a much higher level of security than other basic security measures (passwords/PINs).

3. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganapathi as modified by Lofberg and in further view of McElroy (US 4184207). The teachings of Ganapathi as modified by Lofberg have been discussed above.

Regarding claim 11, Ganapathi as modified by Lofberg teaches a card according to claim 10, as shown above. Ganapathi further teaches comprising a matrix of cells (Fig. 16A), each cell being defined by a cross-over point between one of a plurality of parallel first conductors and one of a plurality of parallel second conductors overlying and separated from the first conductors (Rs), wherein a second portion of the matrix is a fingerprint sensor and the cells of the second fingerprint sensor portions are the sensing cells of a fingerprint sensor (abstract), the card also including a resiliently deformable membrane overlying the second fingerprint sensor portion of the matrix, the membrane having conductive portions on its underside to connect the first and second conductors of one or more sensing cells in response to the presence of absence of a fingerprint ridge pressing down on the deformable membrane (Col. 3 Lines 1-6, Col. 12 Lines 52-67).

Ganapathi lacks a first portion of the matrix being a memory device.

Lofberg teaches a first portion being a memory device (6 - Fig. 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to provide a memory device in combination with the fingerprint sensor because it allows the card to store a reference fingerprint that can be used to increase security of the card.

McElroy teaches wherein the memory is a matrix of cells (Fig. 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use the matrix of cells taught by McElroy in the memory device because the matrix allows for small cell size and for dense arrays of electrically programmable memory cells (Col. 1 Lines 48-55).

Regarding claim 12, Ganapathi in view of Lofberg and McElroy teaches the card according to claim 11, as shown above.

Ganapathi further lacks the details of the second memory device.

Lofberg teaches wherein the second memory device portion includes a first memory section for storing a selected fingerprint pattern (Col. 5 Lines 30-32), and a second memory section for storing information about a selected authorized user or selected authorized users of the card (account number - abstract, also reference fingerprint could be considered user information).

Therefore it would have been obvious to one of ordinary skill in the art to store both the fingerprint information and user information because it allows the card to be used as, for example, a transaction card while also providing the extra biometric security.

Regarding claim 13, Ganapathi in view of Lofberg and McElroy teaches the card according to claim 12, as shown above.

Ganapathi further lacks the details of the memory.

Lofberg teaches wherein the first memory section (6) is adjacent and contiguous to the fingerprint sensor portion (2), and the second memory section (6) is adjacent and contiguous to the first memory section and the fingerprint sensor portion (Fig. 1).

Therefore it would have been obvious to one of ordinary skill in the art to provide memory that stores both the fingerprint information and user information because it allows the card to be used as, for example, a transaction card while also providing the extra biometric security.

Regarding claim 14, Ganapathi in view of Lofberg and McElroy teaches the card according to claim 11, as shown above. Ganapathi further teaches wherein the card includes a set of drive electrodes connected to the first conductors for supplying signals thereto and a set of sensing electrodes connected to the second conductors for monitoring the output therefrom (Col. 10 Lines 48-63).

Regarding claim 15, Ganapathi in view of Lofberg and McElroy teaches the card according to claim 14, as shown above. Ganapathi further teaches wherein a single set of drive electrodes and a single set of sensing electrodes may be used to address the fingerprint sensor (Fig. 16a).

Ganapathi lacks the details of the memory.

McElroy teaches wherein a single set of drive electrodes and a single set of sensing electrodes may be used to address or interrogate the memory device (Fig. 1).



Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use the matrix of cells taught by McElroy in the memory device because the matrix allows for small cell size and for dense arrays of electrically programmable memory cells (Col. 1 Lines 48-55).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAFFERTY KELLY whose telephone number is (571)270-5031. The examiner can normally be reached on Mon. - Fri. 800-1730 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rafferty Kelly/

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Art Unit: 2876

Examiner, Art Unit 2876

10-7-09

/Michael G Lee/

Supervisory Patent Examiner, Art Unit 2876